

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-25. (canceled)

Claim 26. (new): A method for logging-on a mobile unit at a fixed station, the method comprising the steps of:

selecting, at the fixed station, a sequence in which a plurality of carrier frequencies are changed from one time period to the next when communicating with the fixed station;

transmitting data from the fixed station, wherein the data comprises check data, said check data comprising identification of the selected sequence and a time slot position of a specific carrier frequency being used by the fixed station during the step of transmitting;

determining, via the mobile unit, the specific carrier frequency being used by the fixed station when the data was transmitted;

determining, via the mobile unit, the selected sequence in which the plurality of carrier frequencies are changed from one time period to the next, using the transmitted check data;

determining, via the mobile unit, the time slot position of the specific carrier frequency relative to the selected sequence, using the transmitted check data;

determining, via the mobile unit, a subsequent carrier frequency used in a subsequent time period relative to the time slot position of the specific carrier frequency, using the check data; and

changing to the subsequent carrier frequency, via both the mobile unit and the fixed station, after a predetermined time period in accordance with the selected sequence.

Claim 27. (new): A method for logging-on a mobile unit at a fixed as claimed in claim 26, the method further comprising the step of:

automatically transmitting the check data during a logging-on mode between the mobile unit and the fixed station.

Claim 28. (new): A method for logging-on a mobile unit at a fixed as claimed in claim 26, wherein the fixed station and mobile unit include a plurality of different sequences in which the plurality of carrier frequencies are changed from one time period to the next.

Claim 29. (new): A method for logging-on a mobile unit at a fixed station as claimed in claim 26, wherein the set of selecting, at the fixed station, a sequence in which one or more carrier frequencies are changed from one time slot to the next is determined via an algorithm.

Claim 30. (new): A method for logging-on a mobile unit at a fixed station as claimed in claim 26, the method further comprising the steps of:

sensing which of the plurality of carrier frequencies is subject to interference;
using, during the logging-on of the mobile unit, a carrier frequency which is prescribed by the predetermined sequence and has been sensed as being subject to interference; and
passing over the carrier frequency sensed as being subject to interference after logging-on has been completed.

Claim 31. (new): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 26, wherein a 2.4 GHz ISM frequency band is used for transmission.

Claim 32. (new): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 26, wherein the number of available carrier frequencies is at least 75.

Claim 33. (new): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 26, wherein the number of available carrier frequencies is at least 96.

Claim 34. (new): A system for the transmission of data between a mobile unit and a fixed station, the system comprising:

a fixed station, the fixed station comprising:

a processor that selects a sequence in which a plurality of carrier frequencies are changed from one time period to the next when communicating with the fixed station; and

a transmitting module that transmits data from the fixed station, wherein the data comprises check data, said check data comprising identification of the sequence selected by the processor, and a time slot position of a specific carrier frequency being used by the fixed station during transmission;

a mobile unit, wherein the mobile unit comprises a processor that determines

the specific carrier frequency being used by the fixed station when the data was transmitted,

the selected sequence in which one or more carrier frequencies are changed from one time period to the next, using the transmitted check data,

the time slot position of the specific carrier frequency relative to the selected sequence, using the transmitted check data, and

a subsequent carrier frequency used in subsequent time period relative to the time slot position of the specific carrier frequency using the check data; and

sequencing means for changing to the subsequent carrier frequency in both the mobile unit and the fixed station after a predetermined time period in accordance with the selected sequence.

Claim 35. (new): A system for the transmission of data between a mobile unit and a fixed station as claimed in claim 34, the system further comprising:

a switching device in the fixed station for switching over between a logging-on mode and a normal transmission mode, wherein the check data is transmitted automatically if the switching device is switched to the logging-on mode.

Claim 36. (new): A system for the transmission of data between a mobile unit and a fixed station as claimed in claim 34, wherein each of the fixed station and the mobile unit respectively includes a plurality of different sequences in which a plurality of carrier frequencies are changed from one time slot to the next.

Claim 37. (new): A system for the transmission of data between a mobile unit and a fixed station as claimed in claim 34, wherein the processor in each of the fixed station and the mobile unit process the selection of the sequence via an algorithm.

Claim 38. (new): system for the transmission of data between a mobile unit and a fixed station as claimed in claim 34, wherein the plurality of carrier frequencies lie in a 2.4 GHz ISM radio band.